EXHIBIT 9

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

CORRIGENT CORPORATION, Plaintiff, v. CISCO SYSTEMS, INC., Defendant.	)	Case No. 6:22-cv-00396-ADA **JURY TRIAL DEMANDED**

SUPPLEMENTAL EXPERT REPORT AND DECLARATION
OF DR. ROBERT AKL, D.SC.

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I. INTRODUCTION

1. My name is Robert Akl. I have been retained by counsel for Plaintiff Corrigent Corporation ("Plaintiff" or "Corrigent") as an independent technical expert witness in this litigation to provide expert opinions concerning the patents in this case, including U.S. Patent No. 6,957,369 (the "'369 Patent"). I have already submitted opening, rebuttal, and reply expert reports in this case under the deadlines previously established in the case schedule.

2. I understand that, on June 24, 2024, the Court issued an order granting Cisco's Motion for Judgment on the Pleadings under 35 U.S.C. § 101 with respect to the '369 Patent. On that same day, the Court granted Corrigent Leave to Amend its Pleadings to allege additional facts pertaining to the patent eligibility issue, and that the deadline for Corrigent to file that amended pleading is on July 12, 2024. I further understand that Corrigent intends to file a First Amended Complaint on July 12, 2024 that provides additional factual allegations that are pertinent to the '369 Patent's eligibility under 35 U.S.C. § 101. In connection with that deadline, have been asked to furnish a supplemental declaration providing facts and opinions that further clarify my opinions with respect to the eligibility of the Asserted Claims of the '369 Patent (which I understand to be claims 1, 2, 15, 18, and 21), and in particular to clarify my opinions as to what the Asserted Claims of the '369 Patent are directed toward, as well as my opinions as to whether the claimed inventions of the '369 Patent are well understood, routine, and conventional.

3. I have previously been instructed on the law of patent eligibility. Those understandings are memorialized in my Rebuttal Expert Report at paragraphs 65-74. I have applied those understandings of the law of patent eligibility throughout this case and in this supplemental expert report and declaration.

4. Based on my understandings of the relevant law, certain opinions I have rendered in my previous expert reports are, in my opinion, pertinent to the patent eligibility question with

respect to the ’369 Patent. Those opinions are recited in my Opening Expert Report at paragraphs 70-81, my Rebuttal Expert Report at paragraphs 75-76 and 80-315, and my Reply Expert Report at paragraphs 13-16. I incorporate those paragraphs from my prior reports herein by reference.

5. I reserve the right to supplement my opinions on the patent eligibility of the ’369 Patent based on any additional information that might become available to me in this litigation, including any additional opinions on patent eligibility rendered by Dr. Stephen Wicker, Cisco’s technical expert on the ’369 Patent in this case.

II. BACKGROUND

A. Background and Qualifications

6. My qualifications were provided with my Opening Report in this case, where I also provided a current copy of my CV. I incorporate those qualifications into this report and declaration by reference.

B. Compensation

7. My compensation is outlined in my Opening Report (¶ 21). My compensation is not affected in any way by the opinions that I render in this report.

C. Additional Materials Considered

8. In forming my opinions expressed herein, I have considered all of the materials that have been referenced in or cited within all of my previous expert reports in this case, the materials that have been referenced in or cited within Dr. Wicker’s expert reports relating to the ’369 Patent, as well as any additional materials discussed or recited herein.

9. Based on the materials I have reviewed in this case, I remain firmly of the opinion that the Asserted Claims of the ’369 Patent (Claims 1, 2, 15, 18, 21) are patent eligible, are not directed to abstract ideas, and claim network failure testing systems and techniques that were more than what was well understood, routine, and conventional in the art.

D. Level of Ordinary Skill in The Art

10. I incorporate my understandings of the person of ordinary skill in the art expressed in my Opening Report (¶¶ 26-30). My opinions in this report and declaration would remain unchanged if I were to apply Dr. Wicker's understandings of the meaning of the POSA.

III. SUPPLEMENTAL OPINIONS

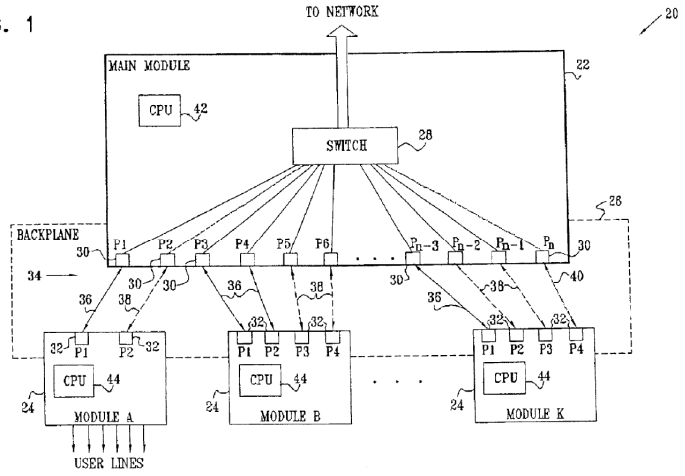
11. As of the priority date of the '369 Patent, a specific problem that existed in the art pertained to detecting hidden failures in networking communications systems. Failures within networking components commonly went undetected, and network administrators would not realize that such failures were occurring until after the fact that data was not received or transmitted properly. The emergence of such failures without proactively detecting them could lead to catastrophic consequences for network administrators. As of the priority date, methodologies for conducting failure testing were limited, with most prior art techniques requiring the network administrator to take systems or portions of system offline to conduct testing. The tests were also frequently required to be conducted manually by the network administrator, over the course of several steps, that required "a lot of work" and "require a very detailed knowledge," and were not "particularly easy to use." Joseph D. Sloan, Network Troubleshooting Tools (August 2001), at 184. Other types of network testing flooded the network with packets, "produce a considerable strain on your network," and it was recommended that "[y]ou should use these tools to test systems offline, perhaps in a testing laboratory prior to deployment or during scheduled downtime." *Id.* at 190-191. In many cases, these and other known testing techniques prevented the network from running network traffic on some or all portions of the system while network testing was being conducted. Additionally, to the extent failure testing existed in the prior art that did not require a system to be taken offline, it was commonly limited to individual components of a network,

utilizing dedicated test circuitry that required the provisioning of additional hardware that required the use of additional memory, circuitry, and system resources.

12. In my opinion, the '369 Patent presented novel and unconventional systems and methods for "diagnostic testing of electronic equipment, and specifically to non-intrusive self-testing of communication systems," so as to ensure that hidden failures are detected within computer networking components in a manner that improved network failure testing and addressed the above problems in the network communications field. '369 Patent at 1:5–7; *id*. at Abstract. The '369 Patent, therefore, was directed to the specific problems known in the art referenced above, including the problem of testing for failures in network communications systems while regular traffic is running within the system. As of the priority date, there were not seamless methods of network failure testing that promoted flexibility and efficiency, increased performance, decreased the amount of necessary hardware, and reduced human intervention and system downtime to detect hidden failures amongst networking components. The inventions of the '369 Patent provide these benefits. For example, they "enable[] an electronic system to test its idle lines and components and detect hidden failures without intruding on normal traffic carried by the system's active lines." *Id*. at 2:26–29. "The testing method makes use of existing components in the system and requires substantially no dedicated testing hardware. It is applicable to all types of subsidiary modules, even in systems that mix different modules using different data formats and communication protocols." *Id*. at 31–28. Although it makes use of existing hardware components, the self-testing methodology performs failure testing in a particular manner, using a particular configuration of testing and components that was more than what was well-understood, routine, and conventional in the art. Unlike prior art methods, it does not require additional testing hardware or the need to disable components of the system, thereby saving system resources and

memory, as well as costs (both time and money) of both implementing and running network testing. Additionally, unlike prior art methods, it does not require disabling hardware components during testing, thereby permitting non-intrusive forms of testing that can seamlessly run in the background while network traffic is being transmitted on a system. And, unlike prior art methods, the testing method is agnostic to data formats and can be implemented without requiring the processing of packet data during the testing process, thereby reducing the amount of bandwidth necessary to conduct testing. The failures of the prior art combined with the '369 Patent inventions' advantages demonstrate that the claimed inventions, discussed below, improve the functioning of network computer systems to perform conduct diagnostic failure detection. One embodiment of the inventions of the '369 Patent is shown in FIG. 1, reproduced below.

FIG. 1



Id. at Fig. 1; *see also id*. at 4:54–5:54.

A. Claim 1

13. Consistent with the above, it is my opinion that the asserted claims of the '369 Patent, including claims 1, 2, 15, 18, and 21, are not directed to an abstract idea, but instead recite specific implementations of failure testing technology to address a specific problem that improves computer networking functionality: identifying failures of network components in a complex,

interconnected networking system. Moreover, it is my opinion that the asserted claims of the '369 Patent recite several inventive concepts. Claim 1 recites the following:

> 1. In an electronic system that includes a main module and at least first and second subsidiary modules, each of said at least first and second subsidiary modules connected to the main module by one or more lines for carrying data, at least some of which lines are sometimes idle, the main module including a switch having ports connected to the lines, a method for self-testing the system, comprising:
>
> selecting a first idle line among idle lines connecting the first subsidiary module to a first port of the switch on the main module to serve as an aid line;
>
> instructing the first subsidiary module to loop back traffic reaching the first subsidiary module via the aid line;
>
> selecting for testing a second idle line among the idle lines connecting the second subsidiary module to a second port of the switch on the main module;
>
> configuring the switch to link the first and second ports;
>
> transmitting test traffic over the second idle line from the second subsidiary module to the main module, wherein the test traffic is conveyed via the switch to the aid line connecting to the first subsidiary module; and
>
> reporting that a failure has occurred if the test traffic does not return to the second subsidiary module within a predetermined period of time.

14. In my opinion, method claim 1 constitutes a specific improvement in computer networking failure testing technology over the prior art and includes several inventive concepts. The '369 Patent is a specific improvement to self-testing methodologies of failure testing that can identify hidden failures in networking systems, because the method includes the testing of "idle lines" using test traffic, even when those lines are not running data traffic. This "enables an electronic system to test its idle lines and components and detect hidden failures" in a non-intrusive manner, as the specification explains. '369 Patent at 2:26-30.

15. Method claim 1 also constitutes a specific improvement in computer networking failure testing technology over the prior art because it uses off-the-shelf networking components and modules without the need to include add additional hardware, such as dedicated test circuits,

and can be utilized with a "main module," and first and second "subsidiary modules," as claimed. This underscores, in my opinion, that the claimed invention (unlike testing methods in the prior art) does not require the provisioning of additional hardware or memory to perform the testing functionality, and that it makes the hardware testing more efficient and faster than prior art techniques that required the use of additional resources. The '369 Patent explains that "[t]he testing method makes use of existing components in the system and requires substantially no dedicated testing hardware." '369 Patent at 2:29-31. The invention, unlike prior art testing methods, "is applicable to all types of subsidiary modules, even in systems that mix different modules using different data formats and communication protocols." *Id.* at 2:29-31. This makes the testing method of the '369 Patent more robust and versatile than prior art methods.

16. The particular method of the '369 Patent also is a specific improvement over the prior art because it tests modules of a networking system using a specified sequence of steps and arrangement of modules that was not previously disclosed in the art, and which can perform such testing in a preconfigured, non-intrusive manner that can detect hidden failures on idle components that might not have active data traffic at particular points in time. The particular configuration requires that the components are interconnected in the manner recited in the claims involving three modules—a main module, a first subsidiary module, and a second subsidiary module that are connected in a manner as recited in the claims above, with a first idle line "connecting the first subsidiary module to a first port of the switch on the main module to serve as an aid line," and a second idle line "connecting the second subsidiary module to a second port of the switch on the main module," and transmitting test traffic such that the traffic flows through "the second idle line from the second subsidiary module to the main module, wherein the test traffic is conveyed via the switch to the aid line connecting to the first subsidiary module," and loops back to "the second

subsidiary module." This particular testing methodology that transmits test traffic using three modules in that specific testing configuration was not known in the art. Nor was the particular sequence of "selecting," "instructing," "configuring," and "transmitting" steps is required by the claims. I understand that the Court construed the claims of the '369 Patent (including Claim 1) to require that "[t]he instruct[ing] step must be performed after the completion of the first selection; the configur[ing/e] step must be performed after the [completion] of both selections; and the transmit[ting] step must be performed after both selections." ECF No. 69, Claim Construction Order at 2. Given all of the above, it is my opinion that it was unconventional to perform failure testing on networking equipment using the claimed arrangement of components, the particular interconnection and test traffic flow between those components, and the particular loopback mechanism utilizing idle lines recited within Claim 1 of the '369 Patent. Indeed, during prosecution the inventor successfully distinguished the unique testing configuration and methodology of claim 1 of the '369 Patent over the prior art. '369 Prosecution History at COR-CSC000000160-161 (discussing that "Claim 1 recites a method for self-testing that uses a switch in a main module and two different subsidiary modules, which are connected to the main module and exchange test traffic via the switch," and why this was innovative over the prior art that used a different network testing configuration (Serikawa)).

17. The invention of claim 1 employs several concepts that, when viewed individually or together, are specific improvements over the prior art—this includes the particular configuration of components disclosed in the methods (including the arrangement of modules and lines being tested), the ability to use dedicated "test traffic" to test idle lines (including those that are not actively receiving data traffic), and the use of preconfigured configurations of links and loopbacks that can autonomously run in the background of a networking system to detect failures of various

networking components and traffic lines. These concepts were more than what was well-understood, routine, and conventional, whether viewed individually or as an ordered combination. Prior to the '369 Patent's invention, no one had adopted a particular failure testing methodology that could autonomously self-test and detect hidden failures in networking systems, and that could do so in a preconfigured manner, as claimed. This is in contrast to prior art testing methods, such as the use of a ping, which required manually transmitting packets to individual network nodes one-at-a-time to check for failures. Indeed, methods like ping required a network administrator to "run it repeatedly, changing your destination address so that you work your way through each intermediate device to your destination," because ping required repeated manual transmissions to be sent to isolate network failures. Joseph D. Sloan, Network Troubleshooting Tools, at 47. I also note that, based on my review of Dr. Wicker's invalidity reports, Cisco and Dr. Wicker have not been able to identify a single ground of anticipation against the '369 Patent. In my opinion, this underscores that Claim 1 is not directed to abstract ideas, and was instead directed to specific implementation details of network failure testing that were more than what was well understood, routine, and conventional in the art. Further, the failure testing methodology recited in Claim 1 of the '369 Patent is not results-based—instead, the methodology provides a specific means for performing failure testing to address a specific problem in the computer networking field—identification of unknown, failed components. In sum, it is my opinion that the claim is directed to specific improvements in the functioning of computer networking equipment to detect failures amongst modular components. The claim is not directed to forwarding, analyzing, or collecting data.

B. Claim 2

18. Claim 2 of the '369 Patent depends from claim 1, and claims "[a] method according to claim 1, wherein instructing the first subsidiary module comprises configuring the first

subsidiary module to loop back the traffic to the main module substantially without processing data comprised in the test traffic." As with claim 1, it is my opinion that claim 2 is not directed to an abstract idea, and was instead directed to failure detection techniques that were more than what was well-understood, routine, and conventional in the art, for the reasons stated above with respect to claim 1. When viewed in combination with the claim requirements of claim 1, moreover, it is my opinion that the additional requirement of claim 2 includes an additional inventive concept, which is one of conducting background failure testing in an even more efficient manner that further minimizes the intrusiveness of the testing on the bandwidth and processing capacity of the networking system. As the specification states, the loopback function of the invention "does not require that the subsidiary module decode or process the traffic—only that it send it back bit by bit over the aid line to the master module." '369 Patent at 2:9-12. This is in contrast to alleged prior art methods of utilizing loopbacks in the context of network diagnostics, such as ping functionality, which requires some processing and the generation of new packets at a receiving node, as well as other failure testing techniques that required data processing at a receiving node. Network Troubleshooting Tools, at 42 (discussing generation of two specific ICMP messages, ECHO_REQUEST and ECHO_REPLY, that are used in connection with ping functionality). Implementing methodologies that do not require data processing at the loopback nodes improves both the speed and efficiency of network failure detection systems, constitutes an inventive concept over the prior art, and underscores that the method of claim 2 does not claim failure testing techniques that are abstract, and claims methods that are more than what was well-understood, routine, or conventional in the art.

C. Claim 15

19. Apparatus claim 15 of the '369 Patent is also not directed to an abstract idea, and is directed to network failure detection concepts that were more than what was well understood,

routine, and conventional in the art. As with claim 1, it is my opinion that claim 15 is not directed to an abstract idea, and is instead directed to more than was well-understood, routine, and conventional in the network failure testing art for the reasons stated above with respect to claim 1. It recites the following:

> 15. Modular electronic apparatus, comprising:
>
> a backplane, which comprises traces for carrying data between modules that are plugged into the backplane;
> a main module, plugged into the backplane, the main module comprising a switch having ports for connection to the traces of the backplane;
>
> at least first and second subsidiary modules, plugged into the backplane so as to be connected to the main module by the traces, at least some of which traces are sometimes idle; and
>
> a system control processor, which is operative to select a first idle trace among idle traces connecting the first subsidiary module to a first port of the switch on the main module to serve as an aid trace, to instruct the first subsidiary module to loop back traffic reaching the first subsidiary module via the aid trace, to select for testing a second idle trace among the idle traces connecting the second subsidiary module to a second port of the switch on the main module, and to configure the switch to link the first and second ports, the system control processor being further operative to cause test traffic to be transmitted over the second idle trace from the second subsidiary module to the main module, wherein the test traffic is conveyed via the switch to the aid trace connecting to the first subsidiary module, and to report that a failure has occurred if the test traffic does not return to the second subsidiary module within a predetermined period of time.

Id. at claim 15. Claim 15, as an apparatus claim, recites particular hardware components and limitations that further underscore that the claims of the '369 Patent are directed to computer networking technologies, and to the specific problem of conducting new and improved failure testing of networking components. Claim 15, like claim 1, recites components that are unique to computer networking, including a "backplane," "main module," first and second subsidiary modules, and "system control processor." The claim also recites "traces," which like the lines of Claim 1, are understood in the art as interconnections between networking components. Claim 15, despite reciting the aforementioned networking components and modules, does not require

dedicated testing hardware (improving the efficiency of the failure testing without the need for additional memory or hardware), and facilitates preconfigured failure testing that can be conducted without manual intervention and in a non-intrusive manner. Moreover, by using networking components and hardware modules in the claimed manner, without the need for dedicated testing hardware, the claimed inventions of both claims 1 and 15 promote hardware testing that can be conducted in a flexible manner.

D. Claim 18

20. Claim 18 depends from claim 15 and, in my opinion, is likewise not directed to an abstract idea. Claim 18 is also directed to concepts that were more than what was well-understood, routine and conventional in the art. It is directed to a new and improved networking apparatus that addresses the problem of network failures by self-testing and diagnosing networking components. It includes all of the inventive concepts discussed above with respect to claims 1 and 15. The claim adds the requirement over claim 15 that "the system control processor is operative to select one or more further idle traces for testing among the idle traces in the system, wherein the further idle traces connect to further ports of the switch on the main module, and to repeatedly configure the switch, cause the test traffic to be transmitted, and report the failure when it occurs with respect to the further idle traces until all the idle lines have been tested." In my opinion, this claim includes yet another inventive concept, which is that the failure testing system can be configured to autonomously conduct failure testing on all of the idle traces in a system without the need for manual intervention. This again, was advantageous over prior art methods for several reasons, including the fact that prior art techniques (such as ping functionality) would have required setting up numerous manual tests to check for all failures, and the fact that prior art systems used dedicated testing hardware on individual circuits and would have required the addition of numerous pieces of additional hardware (and the corresponding need for additional memory) to test all of the idle

lines. The invention and techniques of the '369 Patent vitiated this need through its new and innovative network failure testing technique that arranges the components and performs the failure testing steps in the particular manner claimed.

E. Claim 21

21. Claim 21, as with the other asserted claims, is likewise not directed to an abstract idea in my opinion. Instead, it is directed to concepts that were more than those that were well-understood, routine and conventional in the art. Claim 21 is directed to a new and improved networking apparatus that addresses the problem of network failures by self-testing and diagnosing networking components. It includes all of the inventive discussed above with respect to claims 1, 15, and 18, and recites the following:

> 21. Modular electronic apparatus, comprising:
>
> a backplane, which comprises traces for carrying data between modules that are plugged into the backplane;
>
> a main module, plugged into the backplane;
>
> a plurality of subsidiary modules, plugged into the backplane so as to be connected to the main module by the traces; and
>
> a system control processor, which is operative to select first and second subsidiary modules of different types for testing among the multiple subsidiary modules, the first and second subsidiary modules being configured to transmit and receive the data in different, respective first and second formats, and which is further operative to test the modules by causing the first subsidiary module to loop back traffic reaching the first subsidiary module from the main module, by configuring the main module to connect the first and second subsidiary modules, so that a traffic transmitted by the second subsidiary module is conveyed to the first subsidiary module via the main module and is then looped back via the main module to the second subsidiary module, and by causing the second subsidiary module to transmit test traffic in the second format to the main module, and assessing whether the test traffic is returned intact from the first module.

Claim 21, like the other claims discussed above, is directed to a new and improved networking apparatus that addresses the problem of network failures by self-testing and diagnosing networking

components. It includes all of the inventive concepts discussed above with respect to claims 1 and 15. The claim also adds the requirement that "the first and second subsidiary modules [are] configured to transmit and receive the data in different, respective first and second formats." By interposing this requirement, this claim reinforces that the claimed invention includes the inventive concept of ensuring that failure testing within networking systems can be conducted in a flexible manner, even with respect to different networking components, due to the versatility of the "test traffic" that runs separately from the data traffic, as well as the testing method's use of loopback testing techniques that do not require the processing of the test traffic at the respective nodes. This flexibility again underscores the efficiency and resource-saving nature of the novel failure testing technique claimed. This flexibility was referenced in the prosecution history with respect to claim 8, which includes the same limitation as claim 21. '369 Prosecution History at COR-CSC00000162 (distinguishing claim 8 over the prior art and noting that the combination of features "underscores the flexibility afforded by the invention recited therein to choose any pair of subsidiary modules to connect and test through the main module, regardless of whether the subsidiary modules are of the same or different types").

F. Additional Opinions Regarding the Asserted Claims Generally, The Specification, and The Prosecution History

22. Because claims 1, 2, 15, 18, and 21 have various distinct claim limitations that are relevant to the claimed implementations of network failure testing as outlined in the above paragraphs, it is my opinion that the POSA would understand that each of the asserted claims of the '369 Patent recites a unique invention and that the asserted claims are not representative of one another.

23. The specification of the '369 Patent provides further reasons that the above-discussed claims are not directed to abstract ideas, are instead directed to specific implementations

and improvements in network failure testing, and would have been understood by the POSA to have been more than what were understood to have been well-understood, routine, or conventional failure testing techniques in the art. The specification explains that the invention is intended to "provide improved methods and systems for non-intrusive testing of electronic systems." '369 Patent at 1:56-60. While the specification acknowledges that other methods of failure testing were known in the art as of the priority date, in my opinion the specification discusses and incorporates by reference two prior art failure testing references that it uses to show examples of how the inventions of the '369 Patent are specific implementations of diagnostic failure testing of network components that are more than what was well-understood, routine, or conventional in the art. Specifically, the '369 Patent incorporates discussion of U.S. Patent No. 5,841,788 to Ke ("Ke"), and WO 01/93499 to Fainguelerent ("Fainguelerent"). '369 Patent at 1:37-54. The differences between the inventions claimed in the '369 Patent and these two references underscore that inventions claimed in the '369 Patent would have been more than what was understood to have been well understood, routine, or conventional in the art, and reinforce that the asserted claims of the '369 Patent include numerous inventive concepts.

24. *First*, with respect to Fainguelerent, there was an ATM system known in the art with "non-intrusive self-test capability," but the specification explained that the system utilized "dedicated self-test circuit[s]" (*i.e.*, additional hardware that needed to be provisioned to perform the testing), and multiple such dedicated self-test circuits were utilized in the system when needed to test multiple physical layer devices in the ATM. As Fainguelerent explains, "[t]he dedicated self test circuit 405 incudes external logic either in the form of a programmable device or discrete components which is coupled to the bus 402." Fainguelerent at 4:20-22, Fig. 4. And "[t]he present invention" has N dedicated test circuits corresponding to the number of physical devices being

testing. Faingueleren at 6:9-11 ("According to the teachings of the present invention, each dedicated self test circuit 509-1, 509-2, . . ., 509-N coupled to the bus 505 in the number of interface layer circuit packs 503-1, 503-2, . . ., 503-N is generic and independent from a functionality for the number of drivers 511-1, 511-2, ..., 511-N."), Fig. 5. This underscores that in the prior art, failure testing methods required the use of dedicated testing hardware that required the provisioning of additional memory and equipment, which is yet another problem that the '369 Patent addresses through its use of existing networking modules and components, as well as the unique and innovative arrangement, sequence of steps, and setup of the testing that it claims.

25. *Second*, with respect to the Ke reference, the '369 Patent states that Ke was a method for backplane interconnect testing, but that "[t]est vectors are applied to individual circuit boards in a system while the remaining circuit boards are disabled." '369 Patent at 1:48-54; Ke at Abstract, 2:21-28. Thus, the POSA would have understood that a disadvantage of Ke was that it could not detect hidden failures within parts of the system while data traffic was still running on other portions of the system, unlike the innovative testing technique of the '369 Patent's claims. Thus, consistent with my opinions above, one disadvantage of failure testing in the prior art was that it tested individual components of a system one at a time while disabling other components or taking them offline. The fact that Ke disables individual circuit boards was relevant to why institution was denied by the PTAB—twice—in connection with efforts to assert obviousness using Ke. Many prior art techniques were like Ke and were highly intrusive on system operations and decreased the efficiency of failure testing, causing system downtime and incurring significant operational and financial thoughts.

26. I understand that, to date, neither Cisco nor any other defendant in ongoing litigation has successfully asserted that the Asserted Claims of the '369 Patent is anticipated or

obvious, which in my opinion reinforces that the claims of that patent were more than what was well understood, routine, or conventional as of the priority date of the patent. My understanding is that this includes attempts to invalidate the '369 Patent (based on Ke), as well as based on other references that Cisco and others have attempted to rely on. This is also reinforced by the prosecution history itself, which I have reviewed and understand determined that the asserted claims of the '369 Patent were patentable over several references, including Ke (which appears among the "References Cited" on the face of the '369 Patent), as well as other references that were explicitly "cited by examiner" on the face of the patent, including U.S. Patent No. 5,541,862 to Bright, U.S. Patent No. 6,028,845 to Serikawa, U.S. Patent No. 6,233,073 to Bowers, U.S. Patent 6,366,556 to Ballintine, and U.S. Patent No. 6,456,586 to Taniguchi. I have reviewed all of those references and none of them claim the particular network failure testing systems and methods recited in the Asserted Claims of the '369 Patent. Ultimately, based on its review of those references and several others cited on the face of the '369 Patent, the Examiner concluded that "[t]he prior arts of record taken alone or in combination fail to teach, anticipate, suggest or render obvious the claimed invention of a method for self testing an electronic system and a modular electronic apparatus recited in the independent claims." '369 Prosecution History at COR-CSC00000175. I agree with the examiner's conclusion, which is consistent with my opinions on eligibility.

27. After the original complaint in this case was filed, I understand that Cisco and its co-petitioner, Dell, attempted to rely on Ke, among other references in an *inter partes review* proceeding (IPR2023-00464). I understand that Cisco and Dell did not raise any anticipation grounds or single-reference obviousness grounds, implying that these sophisticated companies were unable to find a single prior art reference that it believed taught or rendered obvious the

precise failure testing methods claimed in the '369 Patent. Instead, Cisco and Dell asserted only two or three reference obviousness grounds, including obviousness grounds based on combinations of Ke and U.S. Patent No. 4,675,102 to Lewis ("Lewis"); Ke, Lewis, and U.S. Patent Pub. No US/2003/0101426 to Sarkinen ("Sarkinen"); U.S. Patent No. 4,074,352 to Cook ("Cook") and Lewis; and Cook, Lewis, and Sarkinen. I understand that the Patent Trial and Appeal Board (PTAB) denied institution of the IPR on all of these grounds, finding that there was not even a *reasonable likelihood* that the asserted claims of the '369 Patent were unpatentable over combinations of any of the references. IPR2023-00464, Paper 19. It held that the POSA would not have been motivated to combine backplane testing in Ke with loopback testing described in Lewis, emphasizing that in Ke testing is only performed on one circuit board at a time while disabling all others. IPR2023-00464, Paper 19, at 5-8; Ke at 7:26-34 ("[T]est vectors are applied to drivers on a single board at a time while the other boards in the system are disabled."). Thus, the Board found that Ke teaches away from loopback testing that spans multiple modules in the manner claimed in the '602 Patent. And for the combination of Cook and Lewis, Cook utilized dedicated testing lines that were also inconsistent with the unique and innovative failure testing methodology required by the '369 Patent claims. IPR2023-00464, Paper 19, at 8-12. Arista, a defendant in a related district court proceeding, also had the opportunity to identify additional prior art against the '369 Patent, and likewise identified the Ke, Cook, and Lewis references. It too failed to garner institution of the IPR for substantially similar reasons as the failure of Cisco and Dell's Petition. IPR2023-00837, Paper 9.

28. In my opinion, the results at the PTAB are unsurprising given the fact that the Asserted Claims of the '369 Patent were more than what was well understood, routine, and conventional in the art, which is precisely why the relevant prior art references identified during

prosecution and in *inter partes* review petitions are far afield from the claimed inventions. The prior art identified in those proceedings, consistent with both Fainguelerent and Ke as discussed in the specification, either performed testing in an intrusive manner, required the provisioning of additional hardware, or contained other distinctions from the Asserted Claims that were distinct from the claimed invention. The divergence between the various prior art references and the claimed inventions of the asserted claims of the '369 Patent underscores, yet again, my opinion that the asserted claims recite techniques that are more than what was well understood, routine, and conventional, and that they are not directed towards an abstract concept that somehow "preempts" the field of computer network failure testing. Instead, they are directed to a specific implementation of computer network failure testing that is meant to solve a problem that is unique and specific to the computer networking field.

29. Consistent with the above, I understand that another Court has considered the eligibility of Claim 15 of the '369 Patent and found it eligible at Step One of the *Alice* test, noting that the patent "claims an apparatus that performs diagnostic testing on idle traces, and it seems sufficiently specific I do not think I can say it is claiming an abstract idea." *Corrigent Corp. v. Dell Techs.*, No. 22-cv-00496-RGA, D.I. 21, at 1 (March 3, 2023). The Court did not "consider its representativeness" for Claim 15, meaning that it did not need to consider the additional specificity of the failure testing improvements recited in claims 2, 18, and 21 and discussed above. As I have stated above it is my opinion that the claims are not representative and should be considered individually.

IV. CONCLUSION

30. For the foregoing reasons, it is my opinion that none of the Asserted Claims of the '369 Patent is patent ineligible. It is my opinion that the inventions are directed to addressing a specific problem in the computer networking and testing field pertaining to failure testing, using

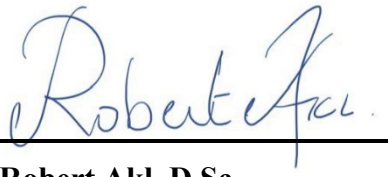
specific improvements as outlined above, and that these improvements individually and collectively constituted something more than what was well understood, routine, and conventional in the relevant art.

* * * * *

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: July 12, 2024

Signed:



Dr. Robert Akl, D.Sc.